

### Summary

A catalyst is described based on crystalline aluminosilicates of the pentasil type, characterized by the fact that it is constructed from primary crystallites with an average diameter of at least 0.01  $\mu\text{m}$  and less than 0.1  $\mu\text{m}$ , that are combined to at least 20% to agglomerates of 5 to 500  $\mu\text{m}$ , in which the primary crystallites or agglomerates are bonded together by finely divided aluminum oxide, that its BET surface is 300 to 600  $\text{m}^2/\text{g}$  and its pore volume (determined according to mercury porosimetry) is 0.3 to 0.8  $\text{cm}^3/\text{g}$ , that it is present in H form and that the amount of finely divided aluminum oxide binder is 10 to 40 wt.%, referred to the total weight of the aluminosilicate, in which the finely divided aluminum oxide binder is present in the reaction charge as peptizable aluminum oxide hydrate, sodium aluminate being used as aluminum and alkali source, and primary synthesis of the crystalline aluminosilicate occurs without addition of acid. A method is also described for production of such a catalyst and its preferred applications.